

AMENDMENT TO THE CLAIMS

Please amend the claims as shown below, without prejudice or disclaimer.

1. (Currently amended) A method of detecting the presence of one or more allele specific anti-Major Histocompatibility Complex (MHC) antibodies in a body fluid sample, the method comprising:
 - (a) contacting said body fluid sample with recombinant MHC molecules immobilized to discrete sites of a solid support such that each site represents one naturally occurring MHC allele, and
 - (b) detecting the binding of antibodies to the recombinant MHC molecules at each site,wherein antibodies directed to each allele, if present in the sample, are separately detected and identified in less than three hours.
2. (Currently presented) A method of detecting the presence of one or more allele specific anti-Human Leukocyte Antigen (HLA) antibodies in a body fluid sample, the method comprising:
 - (a) contacting said body fluid sample with recombinant HLA molecules immobilized to discrete sites of a solid support such that each site represents one naturally occurring MHC allele, and
 - (b) detecting the binding or absence of binding of said antibodies to said recombinant HLA molecules at each site,wherein antibodies directed to each allele, if present in the sample, are separately detected and identified in less than three hours.
3. (Original) The method as claimed in claim 1 or 2 wherein said MHC or HLA molecule is a Class I MHC or HLA molecule.
4. Cancelled.
5. (Previously amended) The method as claimed in claim 1 or 2 wherein the antibodies which are detected are selected from the group consisting of IgG, IgM, and ~~or~~ IgA.

6. (Previously amended) The method as claimed in claim 3 wherein said recombinant MHC or HLA molecule comprises a heavy chain, β_2 -microglobulin, and a peptide.
7. (Previously amended) The method as claimed in claim 6 wherein said peptide is derived from HIV, HCV or an influenza virus.
- 8-10. Cancelled.
11. (Previously amended) The method of claim 1 or 2 wherein said recombinant molecules are bound on a spherical bead.
12. (Previously amended) The method of claim 1 or 2 wherein said wherein said recombinant molecules are bound on a nitrocellulose strip.
13. (Previously amended) The method of claim 1 or 2 wherein said wherein said recombinant molecules are bound on an ELISA plate.
14. (Original) The method of claim 1 wherein the recombinant MHC is synthesized in a prokaryotic expression system.
15. (Original) The method of claim 2 wherein the recombinant HLA is synthesized in a prokaryotic expression system.
16. (Previously presented) The method of claim 1 or claim 2 wherein the sample is blood or a blood-derived sample.
17. (Previously amended) The method as defined in claim 1 or claim 2 wherein the bound antibody is detected via a method selected from the group consisting of an immunosorbent assay using an antibody conjugated to a label or enzyme, detection of colloidal gold, immunoelectron microscopy, flow cytometry, immunofluorescent detection, and ELISA.
- 18-19. Cancelled.
20. (Currently amended) A kit comprising at least the following components:
 - a) a solid support comprising discrete sites, each of said sites comprising recombinant MHC molecules representing a single MHC allele to allow separate detection and identification of anti-MHC antibodies binding thereto; and

b) a moiety capable of direct or indirect detection of anti-MHC-antibodies bound to said recombinant MHC molecules;

wherein said antibodies are detected and identified in less than three hours.

21-23. Cancelled.

24. (Currently amended) The kit as claimed in claim ~~22~~ 20, wherein said solid support is selected from the group consisting of a spherical bead, a nitrocellulose strip, a microtiter plate, and an ELISA plate.

25. (Previously amended) The method as claimed in claim 1 or 2 wherein said recombinant MHC or HLA molecule is in the form of a fusion protein.

26. (Previously amended) The method as claimed in claim 25, wherein said MHC or HLA molecule is fused to a means of immobilization.

27. (Previously amended) The method as claimed in claim 26, wherein said means of immobilization is biotin.

28-29. Cancelled.

30. (Currently presented) The kit of claim ~~22~~ 20 wherein the moiety is detectable by virtue of a property selected from the group consisting of enzymatic properties, radiation emission, scattering, absorption, magnetic properties, and binding to a complimentary agent to produce a detectable effect.

31. (Currently Amended) The kit of claim ~~22~~ 20 wherein the moiety is selected from a ~~the~~ group consisting of a radiolabel, chemical label, chromophore, fluorophore, dye, fluorescein, rhodamine, reagent of high electron density, ferritin, haemocyanin, and colloidal gold.

32. (Currently amended) The method of claim 1 or 2 wherein the alleles of the ~~one or more~~ recombinant HLA molecules are selected from the group consisting of:

<u>A locus</u>	<u>B locus</u>	<u>B locus</u>	<u>C locus</u>
<u>A*0101</u>	<u>B*0702</u>	<u>B*4402</u>	<u>Cw*0102</u>
<u>A*0201</u>	<u>B*0801</u>	<u>B*4501</u>	<u>Cw*0202</u>
<u>A*0301</u>	<u>B*1302</u>	<u>B*4601</u>	<u>Cw*0304</u>
<u>A*1101</u>	<u>B*1401</u>	<u>B*4701</u>	<u>Cw*0303</u>

<u>A*2301</u>	<u>B*1402</u>	<u>B*4801</u>	<u>Cw*0401</u>
<u>A*2402</u>	<u>B*1501</u>	<u>B*4901</u>	<u>Cw*0501</u>
<u>A*2501</u>	<u>B*1502</u>	<u>B*5001</u>	<u>Cw*0602</u>
<u>A*2601</u>	<u>B*1503</u>	<u>B*5101</u>	<u>Cw*0701</u>
<u>A*2902</u>	<u>B*1509</u>	<u>B*5201</u>	<u>Cw*0802</u>
<u>A*3001</u>	<u>B*1512</u>	<u>B*5301</u>	<u>Cw*1202</u>
<u>A*3101</u>	<u>B*1513</u>	<u>B*5401</u>	<u>Cw*1203</u>
<u>A*3201</u>	<u>B*1516</u>	<u>B*5501</u>	<u>Cw*1402</u>
<u>A*3301</u>	<u>B*1801</u>	<u>B*5601</u>	<u>Cw*1502</u>
<u>A*3401</u>	<u>B*2705</u>	<u>B*5701</u>	<u>Cw*1601</u>
<u>A*3601</u>	<u>B*3501</u>	<u>B*5801</u>	<u>Cw*1701</u>
<u>A*4301</u>	<u>B*3701</u>	<u>B*5901</u>	<u>Cw*1801</u>
<u>A*6601</u>	<u>B*3801</u>	<u>B*6701</u>	
<u>A*6801</u>	<u>B*3901</u>	<u>B*7301</u>	
<u>A*6901</u>	<u>B*4001</u>	<u>B*7801</u>	
<u>A*7401</u>	<u>B*4002</u>	<u>B*8101</u>	
<u>A*8001</u>	<u>B*4101</u>	<u>B*B201</u>	
	<u>B*4201</u>		

~~those listed in Table 4.~~

33. (Previously presented) The method of claim 1 or 2 wherein one to 100 MHC alleles are represented by the recombinant MHC molecules.
34. (Previously presented) The method of claim 1 or 2 wherein one to 75 MHC alleles are represented by the recombinant MHC molecules.
35. (Previously presented) The method of claim 1 or 2 wherein one to 50 MHC alleles are represented by the recombinant MHC molecules.
36. (Previously presented) The method of claim 1 or 2 wherein one to 35 MHC alleles are represented by the recombinant MHC molecules.
37. (Previously presented) The method of claim 1 or 2 wherein ten to 75 MHC alleles are represented by the recombinant MHC molecules.
38. (Previously presented) The method of claim 1 or 2 wherein 15 to 30 MHC alleles are represented by the recombinant MHC molecules.
39. (Previously presented) The method of claim 1 or 2 wherein at least 30 alleles are represented by the recombinant MHC molecules.

40. (Previously presented) The method of claim 1 or 2 wherein 30 to 35 alleles are represented by the recombinant MHC molecules.
41. (Previously presented) The method of claim 1 or 2 wherein at least 33 alleles are represented by the recombinant MHC molecules.
42. (Previously presented) The method of claim 1 or 2 wherein two to ten MHC alleles are represented by the recombinant MHC molecules.